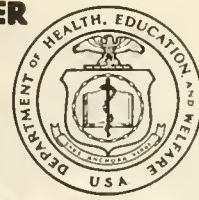


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## COMMUNICABLE DISEASE CENTER



Vol. 15, No. 52

WEEKLY  
REPORTWeek Ending  
December 31, 1966

## U.S. DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE

## PUBLIC HEALTH SERVICE

CURRENT TRENDS  
MEASLES - 1966

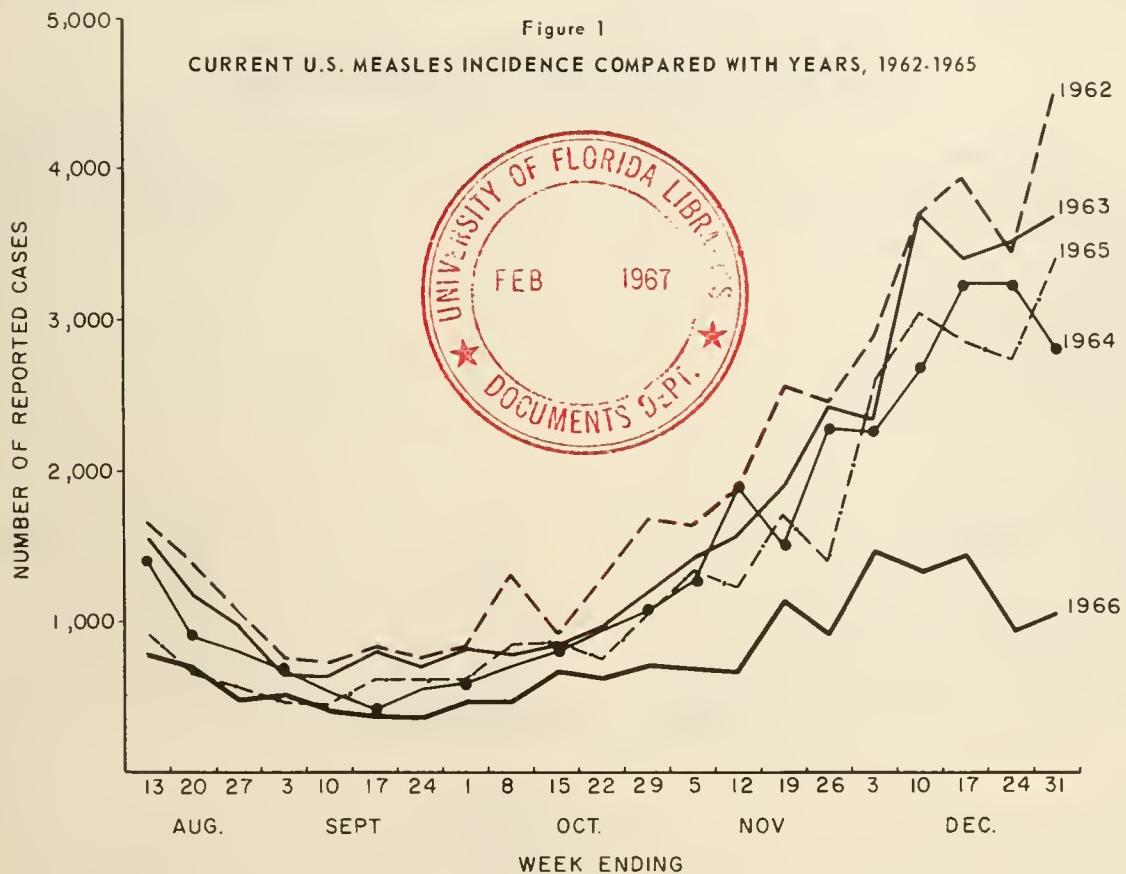
For the 52nd week (ending December 31, 1966), 1,080 cases of measles were reported, representing an increase of 132 cases over the preceding week but a decrease of 2,320 cases from the total of 3,400 for the 52nd week in 1965. The substantial decrease in numbers of reported measles cases in 1966, particularly during the month of December, is compared to the numbers reported for the previous 4 years in Figure 1. The States recording the highest numbers of measles cases for the 52nd week are Texas with 219 cases and Arkansas with 207.

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A total of 23 counties reported "outbreaks" of measles from October 15 through December 24 (Table 1). The weeks in which certain counties have undertaken special control measures are indicated in the Table. (*Reported by the Childhood Viral Diseases Unit, Epidemiology Branch, CDC.*) (Table 1 on page 450)



## CURRENT TRENDS - MEASLES - 1966 (Continued from front page)

Table 1. - Counties Reporting "Outbreaks" of Measles\*

State	County	Pop. (1,000's)	November				December		
			5	12	19	26	3	10	17
Arkansas	Ouachita	32			10	3		119	35
Colorado	Pueblo	119		6	26	11	8	20	18
Kentucky	Menifee	4		1		15	16	11†	1
Michigan	Wayne	2,666	10	71	16	30	35	13	30
Mississippi	Oktibbeha	26			59		99	73	58
Nebraska	Richardson	14		8	41	18	7		14
North Carolina	Durham	112		1		34	25	15	42
Oklahoma	Kay	51					40†	35	9
Oregon	Lane	163	3	3	1	18	11	25	16
Oregon	Washington	92	12	69	56	65†	83	33	31
Tennessee	Maury	42			25		14	24	13
Texas	Brown	25			3	17	13	44	7
Texas	Hutchinson	34				2	50	130	
Texas	Parker	23		18		13		5	3
Texas	Pecos	12			6	7	14	12	4
Texas	Red River	16			14	11	26	12	10
Texas	Travis	212	3	1	5	20		22	30
Washington	Benton	62		6	6			15	5
Washington	Franklyn	23		2	1			8	4
Washington	King	935	41	6	48	38	38	29	50
Washington	Snohomish	172	60	3	89	25†	44	21	23
Washington	Spokane	278	42	24	60	14	36		49
Wisconsin	Waupaca	35	3	4	3	4	2	12	12

\*Criteria for "outbreaks":

Pop. at least 1,000,000: 25 cases for 2 consecutive weeks.

Pop. 500,000-999,999: 20 cases for 2 consecutive weeks.

Pop. 100,000-499,999: 15 cases for 2 consecutive weeks.

Pop. less than 100,000: 10 cases for 2 consecutive weeks.

†Immunization program begun according to reports received by MMWR.

CASES OF SPECIFIED NOTIFIABLE DISEASES: UNITED STATES  
(Cumulative totals include revised and delayed reports through previous weeks)

DISEASE	52nd WEEK ENDED		MEDIAN 1961-1965	CUMULATIVE, FIRST 52 WEEKS		
	DECEMBER 31, 1966	JANUARY 1, 1966		1966	1965	MEDIAN 1961-1965
Aseptic meningitis . . . . .	25	47	27	2,933	2,145	2,135
Brucellosis . . . . .	5	16	9	240	261	400
Diphtheria . . . . .	9	4	5	204	165	298
Encephalitis, primary:						
Arthropod-borne & unspecified . . . . .	29	23	---	2,130	1,880	---
Encephalitis, post-infectious . . . . .	6	13	---	711	654	---
Hepatitis, serum . . . . .	21	{ 674	{ 808	1,483	{ 33,648	{ 42,891
Hepatitis, infectious . . . . .	608			32,467		
Measles (rubeola) . . . . .	1,080	3,400	3,668	202,797	265,501	421,847
Poliomylitis, Total (including unspecified) . . . . .	2	7	10	99	67	446
Paralytic . . . . .	2	4	10	93	50	382
Nonparalytic . . . . .	-	-	---	-	9	---
Meningococcal infections, Total . . . . .	40	83	53	3,373	3,051	2,356
Civilian . . . . .	34	78	---	3,042	2,835	---
Military . . . . .	6	5	---	331	216	---
Rubella (German measles) . . . . .	234	---	---	45,892	---	---
Streptococcal sore throat & Scarlet fever . . .	8,551	7,759	6,094	421,688	389,813	339,479
Tetanus . . . . .	2	12	---	194	285	---
Tularemia . . . . .	8	9	---	185	247	---
Typhoid fever . . . . .	3	19	13	369	461	528
Typhus, tick-borne (Rky. Mt. Spotted fever) . . .	-	1	---	249	262	---
Rabies in Animals . . . . .	84	85	61	3,984	4,248	3,711

## NOTIFIABLE DISEASES OF LOW FREQUENCY

	Cum.		Cum.
Anthrax: . . . . .	7	Botulism: . . . . .	10
Leptospirosis: Md.-1, NY UpS.-1 . . . . .	72	Trichinosis: . . . . .	95
Malaria: Ala.-1, Cal.-7, Mass.-1, Mich.-1, N.C.-4, W. Va.-1 . . . . .	517	Rabies in Man: . . . . .	1
Psittacosis: Minn.-1 . . . . .	47	Rubella, Congenital Syndrome: . . . . .	23
Typhus, murine: Ala.-1, Tex.-1 . . . . .	32	Plague: . . . . .	5

**EPIDEMIOLOGIC NOTES AND REPORTS**  
**TRANSFUSION INDUCED MALARIA - New York City**

A case of blood transfusion induced malaria in a 64-year-old man has recently been reported from New York City. The patient had onset of chills and fever on October 29, 1966; *Plasmodium falciparum* parasites were found in blood smears. He had not traveled outside the United States since he emigrated from Italy in 1913 and he did not have a history of self-inoculations. Because of continuous massive bleedings from the renal pelvis, the patient had received 70 units of blood over the 2-year period prior to onset of malaria.

During the 2 months preceding the onset of illness he received two units of blood on September 6 and 20, and on October 14, 1966. Five of the six blood donors were located and none of them had a history of malaria, overseas travel, blood transfusions or drug addiction. The sixth donor was identified as a 28-year-old male Ghanaian who had resided in New York City from July through November 1966. He had donated blood on October 14. At the time of the investigation, the donor had returned to Ghana. The blood bank records do not indicate a history of malaria in this donor, but malaria is known to be endemic in Ghana.

(Reported by Dr. Tibor Fodor, Chief, Division of Epidemiology and Diagnosis, and Dr. Howard B. Shookhoff, Chief, Tropical Disease Division, both of the Bureau of Preventable Diseases, City of New York Department of Health; and Dr. Murray Wittner, Department of Pathology, Albert Einstein College of Medicine, Bronx, New York.)

**Editorial Note:**

Since 1957, 10 cases of blood transfusion induced malaria have been reported to the Communicable Disease Center. Of these, 7 cases were due to *P. malariae*, one to *P. vivax*, one to a mixed infection of *P. malariae* and *P. falciparum*, and in one case the plasmodium species is unknown. In only one instance was the infectious blood donor identified (New York City, 1958).<sup>1</sup>

**Reference:**

<sup>1</sup>Brady, Jacob A., and Dunn, Frederick L.: Malaria Surveillance in the United States, 1958. Amer J. Trop. Med. 8(6):635-639, (Nov.) 1959.

**CURRENT TRENDS**  
**MALARIA - 1966**

A large increase in the number of cases of malaria in persons returning from overseas has been reported to the Parasitic Diseases Section of the Communicable Disease Center through November 1966. These imported\* cases enhance the risk of focal re-establishment and transmission of malaria in this country and the subsequent occurrence of introduced cases. Similarly, the possibility of transmission of malaria through blood transfusions may result in induced cases of malaria. This report provides current surveillance information on malaria in the United States and is issued in an effort to alert public health officials and practicing physicians to the increasing likelihood that they may encounter this disease.

From January 1 to November 29, 1966, the Malaria Surveillance Unit received epidemiologic information on 390 cases of malaria with onsets in the United States. Although a substantial number of cases occurring during this period may still be reported, the current total is already more than twice the number reported during the whole of 1965, and a larger total than for any year in the past decade (Figure 2). Seventy-eight of the cases with

onset in the United States occurred in civilians and 312 cases in military personnel.† The number of civilian cases thus far in 1966 is comparable to that reported in preceding years. The number of military cases with onsets through October 1966 has shown more than a ninefold increase compared with the same period in 1965. A rising trend has been apparent in the occurrence of military cases as the year has progressed. An additional 278 cases were diagnosed in American servicemen overseas who were subsequently transferred to the United States for treatment.

All but 4 of the 390 cases have been in persons who acquired their infection abroad. Two cases of *Plasmodium vivax* malaria from Fort Knox, Kentucky, in May were in 5-and 3-year-old siblings (MMWR, Vol. 15, No. 21). The diagnosis was confirmed by the Parasitology Unit of the Laboratory Branch, CDC, on the basis of examination of the blood slides. Such epidemiologic evidence as the children's negative history of travel and blood transfusions and their proximity to large numbers of personnel returning from malarious areas in Asia suggested

\*Definitions of malaria terminology used:

**Imported** - malaria acquired outside of a specific area (U.S.A. in this report).

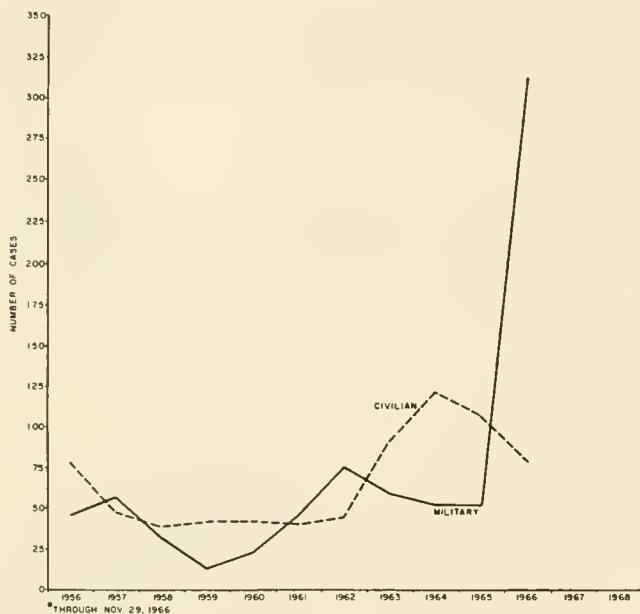
**Introduced** - malaria acquired by mosquito transmission contracted from an imported case in an area where malaria is not a regular occurrence.

**Induced** - malaria acquired through artificial means, i.e., malariotherapy, blood transfusion, common syringes.

†Includes veterans discharged from the Armed Forces in 1965 or 1966.

that the most probable mode of infection was by introduction. Transmission probably occurred during the late summer of 1965 with delayed primary attacks following a prolonged incubation period; however, the specific source of infection has not been identified. One case of congenital malaria due to *P. malariae* was detected in August in Chicago, a rare form of transmission not likely to be witnessed frequently in the United States (MMWR, Vol. 15, No. 34). A case of induced falciparum malaria occurred in a 64-year-old man in New York City following a blood transfusion (MMWR, Vol. 15, No. 52).

**Figure 2**  
**MALARIA**  
**MILITARY AND CIVILIAN, UNITED STATES**  
**1956-1966\***



#### Editorial Note:

Several effects of the increased prevalence of malaria in the United States may be anticipated. These include the likelihood that physicians unfamiliar with malaria may encounter cases of either imported or introduced malaria and that these infections may be caused by drug-resistant forms of *P. falciparum*.

Since the incubation period of malaria can be so much longer than international travel itineraries, physicians in private practice are increasingly likely to be consulted by a patient who has malaria. These may be servicemen who are often given prolonged home leave upon their return from overseas duty. Recently discharged veterans are also likely to be found infected; thus far in 1966, 62 persons had their onset of malaria after their discharge from military service.

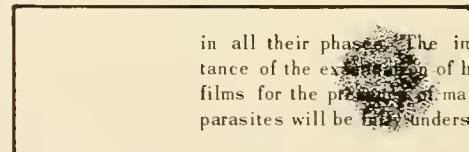
The importance of an accurate diagnosis and the quality of the blood film on which it is inevitably based cannot be overemphasized. Because of the general lack of experience in malaria techniques, these films are often

of very poor quality. The following instructions may serve as a guide for the preparation of blood films for malaria diagnosis. The ideal smear is one which incorporates a thick and a thin film as illustrated in Figures 3 through 5.

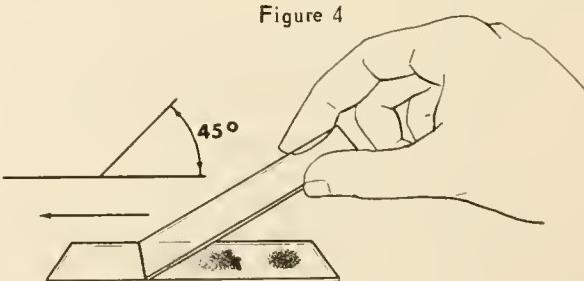
#### Guide for Preparation of Malaria Blood Films:

1. Manufacturers' "pre-cleaned" slides are not considered clean enough for use in malaria diagnosis. Prior to use, such slides should be washed in mild detergent, rinsed thoroughly in warm running water, then distilled water, and dipped in ethyl alcohol (90-95 percent). Slides may then be wiped dry with a lintless cloth or tissue for immediate use or stored in 95 percent alcohol until needed.
2. The patient's finger should be cleaned with alcohol and wiped dry with a clean cloth or gauze.
3. After the finger is punctured with the blood lancet, allow a large globule of blood to form.
4. Place cleaned surface of slide against drop of blood and with a quick circular motion, make a film the size of a dime in the middle third of one end of the slide. Ordinary newsprint should be barely legible through such a wet drop (Figure 3). Excessive mixing or stirring with a second slide leads to distortion of blood cells and parasites.

**Figure 3**



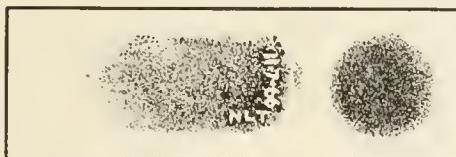
5. The finger should then be wiped dry and a small drop of blood gently squeezed from the puncture and placed at the edge of the middle third of the same slide (Figure 4).



6. Apply a clean "spreader" slide to the edge of the small drop at a 45° angle and allow the blood to extend about two-thirds of the slide width; then

keeping even contact, push the spreader forward along the slide. This will produce an even layer of red blood cells with a "feathering" at the lower edge (Figure 5).

Figure 5



- The blood film should be kept horizontal and protected from dust and insects while the thick film

dries (minimum of 6 hours at room temperature). 8. Label the slide in the upper part of the thin film with the date and the name or initials of the patient as illustrated (Figure 5).

It is requested that thick and thin blood smears for confirmation of the diagnosis of malaria be sent through the State Health Department Laboratories to the National Malaria Repository, Parasitology Section, Laboratory Branch, Communicable Disease Center, Atlanta, Georgia. Epidemiologic and therapeutic questions on malaria in the United States should be directed to: Parasitic Diseases Section (Malaria Surveillance Unit), Communicable Disease Center, Atlanta, Georgia 30333; telephone Area Code 404 633-3311, Extension 3676.

#### EPIDEMIOLOGIC NOTES AND REPORTS SYLVATIC PLAGUE—New Mexico

On December 12, 1966, the New Mexico Department of Public Health was informed of a die-off of jack rabbits, cottontail rabbits, and pack rats in DeBaca County. A plague surveillance team sent to the area to collect specimens and to investigate the extent of the epizootic determined that the die-off extended at least 15 miles east and south of Fort Sumner. Reports now indicate that a major portion of the County is involved.

*Pasteurella pestis* was isolated from tissue of a cottontail rabbit that had recently died about 12 miles south of Fort Sumner. Identification was made by microbiologic reactions including positive fluorescent antibody inhibition test, lysis by phage at 37°C and 20-25°C, positive agglutination test, biochemical reactions, and the demonstration of typical pathology in guinea pigs. By these same methods, *P. pestis* was isolated and identified from fleas (*Thraspis fatus*) obtained from a second cottontail rabbit trapped 8 miles south of Fort Sumner. Fleas (*Hoplopsyllus glacialis affinis*) combed from other cottontail rabbits were injected into guinea pigs; lesions

produced were characteristic of plague and were presumptively positive for *P. pestis* by fluorescent antibody test. Organisms compatible with *P. pestis* have been observed in tissues of other rabbits and pack rats trapped, shot, or found dead in the area. Laboratory studies are continuing on additional tissues and ectoparasites.

In DeBaca County, rabbits are trapped and netted for live shipment to other states by railway express or truck for use as fox food and the training of race dogs. On the day that plague was confirmed in the current epizootic, a shipment of rabbits awaiting transport to Florida was stopped. A shipment which had been made to Missouri 3 days previously is currently being traced. Unofficial information indicates that at times during the past few years shipments have also been made to New Jersey, Massachusetts, Indiana, and Wyoming.

Following confirmation of *P. pestis* infection, the New Mexico Department of Game and Fish issued an order

(Continued on page 460)

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CASES OF SPECIFIED NOTIFIABLE DISEASES: UNITED STATES  
FOR WEEKS ENDED  
DECEMBER 31, 1966 AND JANUARY 1, 1967 (52nd WEEK)

# Morbidity and Mortality Weekly Report

457

## CASES OF SPECIFIED NOTIFIABLE DISEASES: UNITED STATES

FOR WEEKS ENDED

DECEMBER 31, 1966 AND JANUARY 1, 1966 (52nd WEEK) - CONTINUED

AREA	MEASLES (Rubeola)			MENINGOCOCCAL INFECTIONS, TOTAL		POLIOMYELITIS				RUBELLA	
	1966	Cumulative		1966	Cumulative		1966	1965	1966		
		1966	1965		1966	1965					
UNITED STATES...	1,080	202,797	265,501	40	3,373	3,051	2	7	2	93	234
NEW ENGLAND.....	20	2,604	37,488	1	155	161	-	-	-	-	14
Maine.....	6	307	2,949	-	12	18	-	-	-	-	4
New Hampshire.....	-	80	383	-	11	10	-	-	-	-	-
Vermont.....	3	348	1,457	-	4	9	-	-	-	-	-
Massachusetts.....	8	844	19,505	-	62	62	-	-	-	-	8
Rhode Island.....	-	75	3,972	-	21	18	-	-	-	-	2
Connecticut.....	3	950	9,222	1	45	44	-	-	-	-	-
MIDDLE ATLANTIC.....	17	18,617	19,423	7	448	406	-	-	-	1	15
New York City.....	5	8,381	4,127	2	67	68	-	-	-	-	3
New York, Up-State.....	7	2,687	4,512	1	115	118	-	-	-	-	9
New Jersey.....	5	2,033	4,140	3	140	107	-	-	-	-	-
Pennsylvania.....	-	5,516	6,644	1	126	113	-	-	-	1	3
EAST NORTH CENTRAL...	137	70,625	64,776	3	536	457	-	2	-	8	62
Ohio.....	40	6,511	9,277	-	158	126	-	-	-	2	7
Indiana.....	2	5,834	2,366	1	89	52	-	-	-	2	2
Illinois.....	17	11,555	4,565	1	97	121	-	2	-	3	3
Michigan.....	35	15,221	28,161	-	135	109	-	-	-	1	12
Wisconsin.....	43	31,504	20,407	1	57	49	-	-	-	-	38
WEST NORTH CENTRAL...	42	9,386	17,578	2	179	148	-	-	-	1	28
Minnesota.....	2	1,690	950	1	41	35	-	-	-	1	1
Iowa.....	15	5,478	9,309	-	23	14	-	-	-	-	19
Missouri.....	-	539	2,688	-	66	58	-	-	-	-	-
North Dakota.....	25	1,439	4,045	-	11	13	-	-	-	-	8
South Dakota.....	-	40	116	-	6	4	-	-	-	-	-
Nebraska.....	-	200	470	1	13	11	-	-	-	-	-
Kansas.....	NN	NN	NN	-	19	13	-	-	-	-	-
SOUTH ATLANTIC.....	120	16,331	27,301	6	569	577	-	1	-	2	21
Delaware.....	1	268	519	-	7	11	-	-	-	-	-
Maryland.....	7	2,133	1,365	1	54	60	-	-	-	-	1
Dist. of Columbia.....	-	390	176	-	15	12	-	-	-	-	-
Virginia.....	3	2,268	4,325	-	67	76	-	-	-	-	12
West Virginia.....	18	5,580	14,872	2	50	30	-	-	-	1	4
North Carolina.....	41	827	419	-	142	121	-	-	-	-	-
South Carolina.....	-	664	1,262	-	55	70	-	-	-	-	-
Georgia.....	-	244	655	2	79	63	-	-	-	1	-
Florida.....	50	3,957	3,708	1	100	134	-	1	-	-	4
EAST SOUTH CENTRAL...	92	20,837	16,356	4	288	233	-	-	-	4	20
Kentucky.....	8	4,877	3,805	-	97	88	-	-	-	-	3
Tennessee.....	49	12,754	9,043	2	98	73	-	-	-	-	15
Alabama.....	34	1,842	2,358	-	62	45	-	-	-	1	2
Mississippi.....	1	1,364	1,150	2	31	27	-	-	-	3	-
WEST SOUTH CENTRAL...	441	27,609	32,207	4	448	380	2	4	2	74	1
Arkansas.....	207	1,389	1,195	1	38	19	-	-	-	1	-
Louisiana.....	5	108	134	1	171	203	-	-	-	1	-
Oklahoma.....	10	672	244	1	24	23	-	-	-	1	-
Texas.....	219	25,440	30,634	1	215	135	2	4	2	71	1
MOUNTAIN.....	73	12,785	21,100	1	95	113	-	-	-	-	21
Montana.....	2	1,935	3,928	-	5	3	-	-	-	-	-
Idaho.....	4	1,715	3,119	-	5	14	-	-	-	-	-
Wyoming.....	1	236	879	-	6	7	-	-	-	-	-
Colorado.....	32	1,467	6,009	-	49	30	-	-	-	-	6
New Mexico.....	13	1,282	694	-	10	11	-	-	-	-	-
Arizona.....	10	5,386	1,588	-	13	24	-	-	-	-	15
Utah.....	4	690	4,658	1	2	19	-	-	-	-	-
Nevada.....	7	74	225	-	5	5	-	-	-	-	-
PACIFIC.....	138	24,003	29,272	12	655	576	-	-	-	3	52
Washington.....	57	5,342	7,619	-	58	49	-	-	-	2	15
Oregon.....	49	2,596	3,520	-	42	38	-	-	-	-	10
California.....	32	15,254	13,864	12	533	460	-	-	-	1	24
Alaska.....	-	646	215	-	18	20	-	-	-	-	-
Hawaii.....	-	165	4,054	-	4	9	-	-	-	-	3
Puerto Rico.....	79	3,588	3,009	-	19	11	-	-	-	1	-

## Morbidity and Mortality Weekly Report

CASES OF SPECIEIED NOTIEIABLE DISEASES: UNITED STATES

FOR WEEKS ENDED

DECEMBER 31, 1966 AND JANUARY 1, 1966 (52nd WEEK) - CONTINUED

AREA	STREPTOCOCAL SORE THROAT & SCARLET FEVER	TETANUS		TULAREMIA		TYPHID		TYPHUS FEVER TICK-BDRNE (Rky. Mt. Spotted)		RABIES IN ANIMALS	
		1966	1966	Cum. 1966	1966	Cum. 1966	1966	Cum. 1966	1966	Cum. 1966	1966
UNITED STATES...	8,551	2	194	8	185	3	369	-	249	84	3,984
NEW ENCLAND.....	1,131	-	4	1	2	-	13	-	3	1	89
Maine.....	32	-	-	-	-	-	-	-	-	-	26
New Hampshire.....	38	-	-	-	-	-	-	-	-	-	31
Vermont.....	-	-	-	-	-	-	-	-	-	1	27
Massachusetts.....	281	-	2	1	2	-	9	-	1	-	4
Rhode Island.....	83	-	-	-	-	-	-	-	-	-	-
Connecticut.....	697	-	2	-	-	-	4	-	2	-	1
MIDDLE ATLANTIC.....	331	-	15	-	-	1	62	-	49	-	232
New York City.....	12	-	5	-	-	-	25	-	-	-	1
New York, Up-State.	319	-	2	-	-	-	15	-	13	-	215
New Jersey.....	NN	-	3	-	-	-	8	-	16	-	-
Pennsylvania.....	-	-	5	-	-	1	14	-	20	-	16
EAST NORTH CENTRAL...	928	-	21	1	24	-	46	-	20	3	496
Ohio.....	134	-	5	-	3	-	21	-	9	2	206
Indiana.....	85	-	4	-	11	-	5	-	-	-	113
Illinois.....	169	-	4	1	9	-	7	-	11	1	75
Michigan.....	384	-	6	-	-	-	7	-	-	-	43
Wisconsin.....	156	-	2	-	1	-	6	-	-	-	59
WEST NORTH CENTRAL...	363	-	15	-	20	-	34	-	4	18	926
Minnesota.....	8	-	3	-	1	-	1	-	-	2	222
Iowa.....	137	-	2	-	-	-	5	-	-	2	168
Missouri.....	-	-	8	-	11	-	18	-	3	6	260
North Dakota.....	158	-	-	-	-	-	1	-	-	2	63
South Dakota.....	26	-	-	-	4	-	-	-	-	6	123
Nebraska.....	1	-	1	-	2	-	2	-	-	-	29
Kansas.....	33	-	1	-	2	-	7	-	1	-	61
SOUTH ATLANTIC.....	751	1	38	-	16	-	70	-	114	6	508
Delaware.....	3	-	-	-	-	-	1	-	2	-	-
Maryland.....	162	-	3	-	5	-	12	-	27	-	3
Dist. of Columbia..	11	-	-	-	-	-	2	-	-	-	-
Virginia.....	200	-	6	-	3	-	16	-	31	3	256
West Virginia.....	174	-	-	-	1	-	1	-	-	-	60
North Carolina.....	34	-	4	-	3	-	6	-	27	-	4
South Carolina.....	-	-	2	-	1	-	15	-	5	-	1
Georgia.....	8	-	8	-	3	-	4	-	22	-	110
Florida.....	159	1	15	-	-	-	13	-	-	3	74
EAST SOUTH CENTRAL...	1,047	-	28	4	28	-	47	-	44	16	521
Kentucky.....	22	-	2	-	2	-	10	-	9	4	125
Tennessee.....	897	-	9	4	18	-	24	-	26	12	353
Alabama.....	117	-	8	-	4	-	6	-	7	-	21
Mississippi.....	11	-	9	-	4	-	7	-	2	-	22
WEST SOUTH CENTRAL...	748	-	48	1	76	-	36	-	10	9	770
Arkansas.....	7	-	5	1	57	-	5	-	2	1	86
Louisiana.....	-	-	12	-	4	-	10	-	-	4	59
Oklahoma.....	61	-	3	-	8	-	10	-	7	1	185
Texas.....	680	-	28	-	7	-	11	-	1	3	440
MOUNTAIN.....	1,908	-	2	1	15	-	16	-	4	8	107
Montana.....	47	-	-	-	2	-	-	-	-	-	7
Idaho.....	99	-	-	-	-	-	-	-	-	-	-
Wyoming.....	44	-	-	-	6	-	-	-	1	-	-
Colorado.....	1,318	-	2	-	2	-	3	-	2	-	18
New Mexico.....	222	-	-	-	1	-	2	-	1	2	20
Arizona.....	109	-	-	-	1	-	5	-	-	6	50
Utah.....	66	-	-	1	3	-	5	-	-	-	3
Nevada.....	3	-	-	-	-	-	1	-	-	-	9
PACIFIC.....	1,344	1	23	-	4	2	45	-	1	23	335
Washington.....	336	-	-	-	-	-	13	-	-	-	15
Oregon.....	46	1	2	-	-	-	1	-	-	-	5
California.....	851	-	21	-	4	2	29	-	1	23	315
Alaska.....	51	-	-	-	-	-	-	-	-	-	-
Hawaii.....	60	-	-	-	-	-	2	-	-	-	-
Puerto Rico.....	2	-	54	-	-	-	19	-	-	-	20

Week No.

## DEATHS IN 122 UNITED STATES CITIES FOR WEEK ENDED DECEMBER 31, 1966

52

(By place of occurrence and week of filing certificate. Excludes fetal deaths)

Area	All Causes			Area	All Causes				
	All Ages	65 years and over	Pneumonia and Influenza All Ages		All Ages	65 years and over	Pneumonia and Influenza All Ages		
NEW ENGLAND:	783	488	37	38	SOUTH ATLANTIC:	1,138	614	58	47
Boston, Mass.	239	134	10	18	Atlanta, Ga.	105	45	5	4
Bridgeport, Conn.*	44	27	1	3	Baltimore, Md.	280	149	3	8
Cambridge, Mass.	29	20	-	-	Charlotte, N. C.	62	25	3	3
Fall River, Mass.	41	33	1	-	Jacksonville, Fla.	65	29	6	5
Hartford, Conn.	71	37	4	2	Miami, Fla.	87	50	2	3
Lowell, Mass.	51	28	4	2	Norfolk, Va.	51	30	4	1
Lynn, Mass.	24	17	1	-	Richmond, Va.	91	41	4	4
New Bedford, Mass*	30	21	4	1	Savannah, Ga.	28	12	3	4
New Haven, Conn.	32	20	-	4	St. Petersburg, Fla.	72	59	6	3
Providence, R. I.	81	58	4	4	Tampa, Fla.	83	55	13	5
Somerville, Mass.	14	10	2	-	Washington, D. C.	186	107	8	3
Springfield, Mass.	52	35	2	2	Wilmington, Del.	28	12	1	4
Waterbury, Conn.	21	14	-	1					.
Worcester, Mass.	54	34	4	1	EAST SOUTH CENTRAL:	550	279	27	30
MIDDLE ATLANTIC:	3,610	2,093	135	153	Birmingham, Ala.	85	42	4	2
Albany, N. Y.	67	34	3	3	Chattanooga, Tenn.	25	16	2	1
Allentown, Pa.	45	26	2	1	Knoxville, Tenn.	33	16	2	2
Buffalo, N. Y.	153	83	6	8	Louisville, Ky.	88	56	5	1
Camden, N. J.	52	38	1	1	Memphis, Tenn.	136	60	5	13
Elizabeth, N. J.	51	31	3	1	Mobile, Ala.	45	23	2	4
Erie, Pa.	32	19	2	2	Montgomery, Ala.	41	20	2	3
Jersey City, N. J.	88	56	3	6	Nashville, Tenn.	97	46	5	4
Newark, N. J.	87	34	10	8	WEST SOUTH CENTRAL:	970	499	33	57
New York City, N. Y.	1,828	1,053	66	77	Austin, Tex.	31	12	2	2
Paterson, N. J.	45	32	2	1	Baton Rouge, La.	30	10	-	7
Philadelphia, Pa.*	549	312	13	23	Corpus Christi, Tex.	23	13	2	-
Pittsburgh, Pa.	190	100	1	8	Dallas, Tex.	118	69	4	9
Reading, Pa.	63	42	3	3	El Paso, Tex.	39	24	7	3
Rochester, N. Y.	105	72	6	3	Fort Worth, Tex.*	67	36	2	4
Schenectady, N. Y.	18	14	-	-	Houston, Tex.	167	74	1	9
Scranton, Pa.	42	24	1	2	Little Rock, Ark.	38	18	3	1
Syracuse, N. Y.	52	32	1	2	New Orleans, La.	189	106	5	8
Trenton, N. J.	67	32	3	2	Oklahoma City, Okla.	76	36	-	3
Utica, N. Y.	39	30	6	2	San Antonio, Tex.	106	58	4	4
Yonkers, N. Y.	37	29	3	-	Shreveport, La.	37	16	1	4
EAST NORTH CENTRAL:	2,651	1,485	72	162	Tulsa, Okla.	49	27	2	3
Akron, Ohio	72	46	-	6	MOUNTAIN:	512	303	29	21
Canton, Ohio	34	18	1	2	Albuquerque, N. Mex.	66	36	6	3
Chicago, Ill.	790	405	33	40	Colorado Springs, Colo.	22	18	4	-
Cincinnati, Ohio	148	97	-	6	Denver, Colo.	137	87	6	4
Cleveland, Ohio	210	115	1	11	Ogden, Utah	18	8	1	1
Columbus, Ohio	137	77	5	3	Phoenix, Ariz.	133	79	10	5
Dayton, Ohio	105	55	1	14	Pueblo, Colo.	26	12	1	2
Detroit, Mich.	354	193	7	24	Salt Lake City, Utah	62	33	-	4
Evansville, Ind.	47	25	2	4	Tucson, Ariz.	48	30	1	2
Flint, Mich.	52	25	2	7	PACIFIC:	1,441	867	43	66
Fort Wayne, Ind.	38	24	2	4	Berkeley, Calif.	29	22	1	1
Gary, Ind.	29	11	1	3	Fresno, Calif.	43	19	2	6
Grand Rapids, Mich.	56	39	4	2	Glendale, Calif.	40	26	-	-
Indianapolis, Ind.	147	80	6	12	Honolulu, Hawaii	51	22	-	3
Madison, Wis.	31	19	-	1	Long Beach, Calif.	78	52	4	3
Milwaukee, Wis.	112	76	2	9	Los Angeles, Calif.	308	177	9	11
Peoria, Ill.	49	25	-	4	Oakland, Calif.	66	37	-	4
Rockford, Ill.	40	28	-	2	Pasadena, Calif.	25	16	1	1
South Bend, Ind.	36	27	1	-	Portland, Oreg.	119	73	4	2
Toledo, Ohio	105	69	4	3	Sacramento, Calif.	91	67	-	1
Youngstown, Ohio	59	31	-	5	San Diego, Calif.	91	48	-	10
WEST NORTH CENTRAL:	778	458	29	37	San Francisco, Calif.	218	122	9	7
Des Moines, Iowa	43	26	2	1	San Jose, Calif.	66	48	9	3
Duluth, Minn.	19	12	2	1	Seattle, Wash.	132	82	2	11
Kansas City, Kans.	40	23	2	3	Spokane, Wash.	51	35	2	1
Kansas City, Mo.	144	78	9	7	Tacoma, Wash.	33	21	-	2
Lincoln, Nebr.	17	12	1	1	Total	12,433	7,086	463	611
Minneapolis, Minn.	101	61	-	2	Cumulative Totals including reported corrections for previous weeks				
Omaha, Nebr.	62	34	3	2	All Causes, All Ages	650,413			
St. Louis, Mo.	209	122	6	12	All Causes, Age 65 and over	372,232			
St. Paul, Minn.	93	62	3	6	Pneumonia and Influenza, All Ages	26,394			
Wichita, Kans.	50	28	1	2	All Causes, Under 1 Year of Age	34,696			

\*Estimate - based on average percent of divisional total.

DECEMBER 31, 1966

## SYLVATIC PLAGUE—New Mexico

(Continued from page 453)

on December 23, 1966, prohibiting the hunting and trapping of rabbits in DeBaca County. Other control measures include general publicity for personal protection and plans for a dusting program for communities in the area.

Including the recent epizootic in DeBaca County, *P. pestis* has now been isolated from wild rodents, rabbits, hares, and/or their fleas in 23 of New Mexico's 32 counties. The prairie dog and rabbit have been associated with cases of human plague most often. Since 1949 there have been 22 human cases, five of which are known to have developed infection following contact with rabbits.

(Reported by Dr. Thomas H. Tomlinson, Associate Director; Daniel E. Johnson, Ph.D., Chief, Public Health Laboratories; and Bryan Miller, M.S., Chief, Vector Control Division, all of the New Mexico Department of Public Health.)

THE MORBILITY AND MORTALITY WEEKLY REPORT, WITH A CIRCULATION OF 15,600, IS PUBLISHED AT THE COMMUNICABLE DISEASE CENTER, ATLANTA, GEORGIA

CHIEF, COMMUNICABLE DISEASE CENTER  
CHIEF, EPIDEMIOLOGY BRANCH  
ACTING CHIEF, STATISTICS SECTION

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IN ADDITION TO THE ESTABLISHED PROCEDURES FOR REPORTING MORBILITY AND MORTALITY, THE COMMUNICABLE DISEASE CENTER WELCOMES ACCOUNTS OF INTERESTING OUTBREAKS OR CASE INVESTIGATIONS WHICH ARE OF CURRENT INTEREST TO HEALTH OFFICIALS AND WHICH ARE DIRECTLY RELATED TO THE CONTROL OF COMMUNICABLE DISEASES. SUCH COMMUNICATIONS SHOULD BE ADDRESSED TO:

THE EDITOR  
MORBIDITY AND MORTALITY WEEKLY REPORT  
COMMUNICABLE DISEASE CENTER  
ATLANTA, GEORGIA 30333

NOTE: THE DATA IN THIS REPORT ARE PROVISIONAL AND ARE BASED ON WEEKLY TELEGRAMS TO THE CDC BY THE INDIVIDUAL STATE HEALTH DEPARTMENTS. THE REPORTING WEEK CONCLUDES ON SATURDAY; COMPILED DATA ON A NATIONAL BASIS ARE RELEASED ON THE SUCCEEDING FRIDAY.

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